IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Benjamin Jung Kim

Serial No.:   Not yet assigned

Filed: herewith

For: A LINEAR INDEPENDENCE METHOD FOR NONINVASIVE ON-LINE SYSTEM IDENTIFICATION/SECONDARY PATH MODELING FOR FILTERED-X LMS-BASED ACTIVE NOISE CONTROL SYSTEMS

Art Unit: Not yet assigned

Examiner: Not yet assigned

Attorney Docket: 823.0145USU

Customer No.:   27623

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In accordance with applicant's duty of disclosure under 37 C.F.R. §1.56, please find attached hereto form PTO-1449 listing information which may be material to the patentability of this application, filed concurrently herewith. This Information Disclosure Statement is being filed:

XXX   Within three (3) months of the filing date of the national application;

____   Within three (3) months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application;

____   Before the mailing date of a first Office Action on the merits;

____   After the filing date or date of first Office Action, but before the mailing date of a final action under 37 C.F.R. §1.113, provided that this occurs prior to the issuance of a Notice of Allowance and provided that this I.D.S. is accompanied by either a certification as specified in 37 C.F.R. §1.97(e) or the fee set forth in 37 C.F.R. §1.17(p);

_____ After the mailing date of a final action under 37 C.F.R. §1.113, provided that this occurs prior to the issuance of a Notice of Allowance and provided that this I.D.S. is accompanied by either a certification as specified in 37 C.F.R. §1.97(e), a petition requesting consideration of the I.D.S., and the petition fee set forth in 37 C.F.R. §1.17(i)(1); and
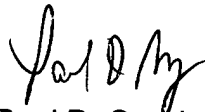
_____ After the mailing date of a Notice of Allowance under 37 C.F.R. §1.311, provided that this occurs prior to the issuance of a final action and provided that this I.D.S. is accompanied by either a certification as specified in 37 C.F.R. §1.97(e), a petition requesting consideration of the I.D.S., and the petition fee set forth in 37 C.F.R. §1.17(l)(1).

Enclosed are copies of Articles entitled the following (1) "Use of Random Noise for On-Line Transducer Modeling in Adaptive Active Attenuation System," (2) "Adaptive Control of a Two-Stage Vibration Isolation Mount," (3) "A Method to Identify the Secondary Path in Active Noise Control Systems," (4) "Active Noise Control System with Parallel On-Line Error Path Modeling Algorithm," (5) "A novel approach to feedforward higher-harmonic control," (6) "Feedforward Control Using the Higher-Harmonic, Time-Averaged Gradient Descent Algorithm," (7) "Secondary Path Delay Estimation Technique for Periodic Active Noise Control," (8) "Conditions for Optimal On-Line Identification of Secondary Paths in Active Noise Control Systems," (9) "Secondary Path Modeling Technique for Transformer Active Noise Control," (10) "An Active Noise Control Algorithm for Controlling Multiple Sinusoids," (11) "A Modified Algorithm for ANC Secondary Path Modeling," (12) "An Active Noise Control Without Estimation of Secondary-Path-ANC Using Simultaneous Perturbation-," (13) "Noninvasive system identification for multichannel broadband active noise control," (14) "On-Line Fundamental Frequency Tracking Method for Harmonic Signal and Application to ANC," and (15) "An Algorithm For Active Control of Transformer Noise with On-Line Cancellation Path Modelling Based on the Perturbation Method,"

Also enclosed are copies of U.S. Patent Nos. 4,677,676; 5,940,519 and 6,418,228.

It should be understood that attention has been called to the references that have been deemed to be pertinent to the claimed present invention. In concluding what was pertinent, the criteria employed was considered most appropriate in light of the invention shown in the present application. However, the Examiner or others may deem some other criteria to be just as appropriate or more appropriate. Therefore, the Examiner is respectfully urged to review the listed references and to make the usual careful independent search for other prior art that may be pertinent.

Respectfully submitted,

July 14, 2003

Paul D. Greeley
Reg. No. 31,019
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.
One Landmark Square, 10th Floor
Stamford, CT 06901-2682
(203) 327-4500

FORM PTO-1449		Docket Number (Optional)	Application Number
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		823.0145USU	Not yet assigned
		Applicant	
		Kim	
		Filing Date	Group Art Unit
		herewith	Not yet assigned

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,677,676	6/30/87	Eriksson	381	71	
	5,940,519	8/17/99	Kuo	381	71.11	
	6,418,228	8/9/02	Terai et al.	381	71.8	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	L.J. Eriksson and M.C. Allie, "Use of Random Noise for On-Line Transducer Modeling in Adaptive Active Attenuation System," Journal of the Acoustical Society of America, Vol. 88, 1989, pp. 797-802.
	S.D. Sommerfeldt and J. Tichy, "Adaptive Control of a Two-Stage Vibration Isolation Mount," Journal of the Acoustical Society of America, Vol. 88, No. 2, 1990, pp. 938-944.
	M.W.R.M. van Overbeek, "A Method To Identify The Secondary Path In Active Noise Control Systems," *Proc.Recent Advances in Active Control of Sound and Vibration*, 1991.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

FORM PTO-1449	Docket Number (Optional)	Application Number
	823.0145USU	Not yet assigned
INFORMATION DISCLOSURE CITATION	Applicant	
IN AN APPLICATION	Kim	
	Filing Date	Group Art Unit
(Use several sheets if necessary)	herewith	Not yet assigned

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	S.M. Kuo, M. Wang, and K. Chen. "Active Noise Control System with Parallel On-Line Error Path Modeling Algorithm," Noise Control Engineering Journal, Vol. 39, No. 3 , 1992, pp.119-127.
	R.L. Clark, "A novel approach to feedforward higher-harmonic control," J. Accoust. Soc. Am. 96 (2), Pt. 1, August 1994, pp. 926-936.
	D.L. Kewley, R.L. Clark and S.C. Southward, "Feedforward Control Using the Higher-Harmonic, Time-Averaged Gradient Descent Algorithm," Journal of the Acoustical Society of America, Vol. 97, 1995, pp. 2892-2905.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

FORM PTO-1449	Docket Number (Optional)	Application Number
	823.0145USU	Not yet assigned
INFORMATION DISCLOSURE CITATION	Applicant	
IN AN APPLICATION	Kim	
	Filing Date	Group Art Unit
(Use several sheets if necessary)	herewith	Not yet assigned

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	Translation NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	S. Kuo, K.M. Chung, "Secondary Path Delay Estimation Technique For Periodic Active Noise Control," *Proceedings of Active 95*, 1995.
	N. Saito, T. Sone, T. Ise and M. Akiho, "Conditions For Optimal On-Line Identification Of Secondary Path In Active Noise Control Systems," *Proceedings of Active 95*, 1995.
	S. M. Kuo and X.H. Jiang, "Secondary Path Modeling Technique For Transformer Active Noise Control," *Proceedings of Inter-noise*, 1999.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

FORM PTO-1449	Docket Number (Optional)	Application Number
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	823.0145USU	Not yet assigned
	Applicant	
	Kim	
	Filing Date	Group Art Unit
	herewith	Not yet assigned

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	S.M. Lee, H.J. Lee, C.H. Yoo, D.H. Youn and I.W. Cha, "An Active Noise Control Algorithm for Controlling Multiple Sinusoids," Journal of the Acoustical Society of America, Vol. 104, 1998, pp. 248-254.
	M. Zhang, H. Lan and W. Ser, "A Modified Algorithm For ANC Secondary Path Modeling," *Proceedings of Internoise*, 1999.
	Y. Maeda and T. Yoshida, "An Active Noise Control Without Estimation of Secondary Path – ANC Using Simultaneous Perturbation," *Proceedings of Active*, 1999, pp. 985-994.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

FORM PTO-1449	Docket Number (Optional)	Application Number
INFORMATION DISCLOSURE CITATION IN AN APPLICATION	823.0145USU	Not yet assigned
	Applicant	
	Kim	
(Use several sheets if necessary)	Filing Date	Group Art Unit
	herewith	Not yet assigned

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	W.C. Nowlin, "Noninvasive system identification for multichannel broadband active noise control," J. Acoust. Soc. Am. 107 (4), April 2000, pp. 2049-2060.
	S. Kim and Y. Park, "On-Line Fundamental Frequency Tracking Method for Harmonic Signal and Application to ANC," Journal of Sound and Vibration (2001), pp. 681-691.
	X. Qiu and C.H. Hansen, "An Algorithm For Active Control of Transformer Noise with On-Line Cancellation Path Modelling Based on the Perturbation Method," Journal of Sound and Vibration, Vol. 240, No. 4, 2001, pp. 647-665.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through

citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.